

Amendments to the Specification:

Please add the following paragraph beginning at page 7, line 2:

-- FIG. 5 is a simplified block diagram of a CDMA system according to an embodiment of the present invention.--

Please add the following paragraph beginning at page 15, line 2:

-- FIG. 5 is a simplified block diagram of a CDMA system 500. The CDMA network includes a mobile station (MS) 502 communicating via one or more base stations (BS) 504 with a Radio Network Controller (RNC) 506. The RNC 506 has a code allocation unit 508 and operates in a UMTS Terrestrial Radio Access Network (UTRAN) 510. The RNC communicates with cord network service nodes, such as an MSC 512 and a General Packet Radio Service (GPRS) node 514. For circuit-switched services, the MSC computes with the PSTN or ISDN 516. In addition, the GPRS node communicates with the Internet 518. To accomplish the methodology described above, the present invention may utilize the CDMA system 500 as illustrated in FIG. 5.

The base station 504 includes an intelligence module 520 capable of reducing radio signal interference caused by simultaneously deploying scrambling codes. This reduction may be conducted by organizing channelization codes in a primary code tree and zero or more secondary code trees, where each of the code trees has zero or more alternative code trees. Each code tree may then have one or more channelisation codes per spreading factor. The channelization codes are, according to their position in the code tree, denoted consecutively by a code index with a lowest to a highest value per spreading factor within each code tree. The base station allocates a channelization code with the lowest code index out of a group of free channelization codes for a certain spreading factor to the channel according to a Compressed Mode type. The base station also allocates, through the intelligence module, a channelization code with the highest code index out of the group of free channelization codes for the certain

spreading factor to a channel according to the second Compressed Mode type and transmits radio signals using these allocated channelisation codes. In addition, the base station, through the intelligence module may perform other functions, such as determining the type of CPM of the channel which is to be allocated a channelisation code, selecting a channelisation code from the group of free channelisation codes with a lowest code index where the selection starts from the left side of the primary code tree for allocating a channelisation code for a channel according to the first Compressed Mode type, selecting a channelisation code from the group of free channelisation codes with a highest code index, where the selection starts from the right side of the primary code tree for allocating a channelisation code for a channel according to the second Compressed Mode type.

In addition, the intelligence module may allocate a channelisation code to a channel according to a first CPM type by creating a list of candidate channelisation codes in the primary code tree which are free and not reserved, excluding from the list a candidate channelisation code, having a corresponding parent code at the associated alternative code tree which is not free, selecting and allocating a candidate channelisation code from the list with a lowest code index, hence from the left side of the code tree, on the primary code tree, if more than one candidate channelisation code exists in the primary code tree, reallocating a channel according to the second Compressed Mode type from the primary code tree to an alternative code tree if there is no candidate channelisation code on the list, allocating the freed channelisation code to the channel according to the first CPM type, and allocating a channelisation code from a new secondary code tree if insufficient free space is created through reallocation of channels according to the second CPM type. Furthermore, the allocation of a channelisation code to a channel according to the second CPM type may include creating a list of candidate channelisation codes in the primary or secondary code tree which are free and not reserved, selecting and allocating a channelisation code from the list with a highest code index, hence from the right side of the code tree, on the primary or secondary code tree, if more than one candidate exists in the primary or secondary code tree, creating a first alternative list, if no candidate channelisation code at the

primary or secondary code tree exists, with candidate channelisation codes at a right side alternative code tree related to the primary or secondary code tree, which channelisation codes must be free and not reserved and with the restriction that the same channelisation code at the related primary or secondary code tree must be used by a channel according to the second CPM type, selecting and allocating the candidate channelisation code with the highest code index from the first alternative list if more than one candidate channelisation code exists, creating a second alternative list with candidate channelisation codes at a left alternative code tree, which alternative code is related to said primary code tree, if no candidate channelisation code at the right alternative code tree exists, which channelisation codes must be free and not reserved and the same channelisation code at the primary code tree must be used by a channel according to the second CPM type, selecting and allocating the candidate channelisation code with the highest code index from said second alternative list if more than one candidate channelisation code exists, and allocating a channelisation code from a new secondary code tree if no candidate channelisation code at the left alternative code tree exists. The intelligence module may allocate a channelisation code to a channel according to the second CPM type utilizing the primary code tree or the secondary code tree and allocating a channelisation code to a channel according to the first CPM type utilize the primary code tree or the secondary code tree. The first CPM type may be a Spreading Factor divide by 2 (SF/2) method, and the second CPM type may be a Higher level scheduling (HLS) or puncturing method. In addition, the CDMA system may be a WCDMA system.--